SIGARMS Training

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SIGARMS, INC. Corporate Park Exeter, NH 03833

P228 Combat Pistol

Armorers Manual

P228

P228

ARMORERS MANUAL

The SIGARMS Armorers Manual is intended as a Reference Source to be used in conjunction with the formal training received from the SIGARMS ACADEMY Armorers School.

SIG-Sauer Pistols are accompanied by an Owners Manual which explains and illustrates user responsibilities and safety precautions. It is recommended that this information be read and adhered to at all times. Information provided in either manual may change without notification.

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1.1 General

The SIG-SAUER P228 combat pistol has been developed to meet the requirements of the world's Military and Law Enforcement Agencies. It is manufactured by state of the art production processes to provide the ultimate in safety, reliability and quality. The P228 is an excellent close combat weapon that can be placed into action rapidly through the use of multiple passive safeties; a double-action trigger mechanism; and high visibility, adjustable sights.

This mechanically locked, short recoil operated, semiautomatic pistol is self-loading and will continue to fire with each pull of the trigger until the slide is locked open by the empty magazine. After firing, the pistol may be easily disassembled for maintenance without the use of tools and with very little effort.

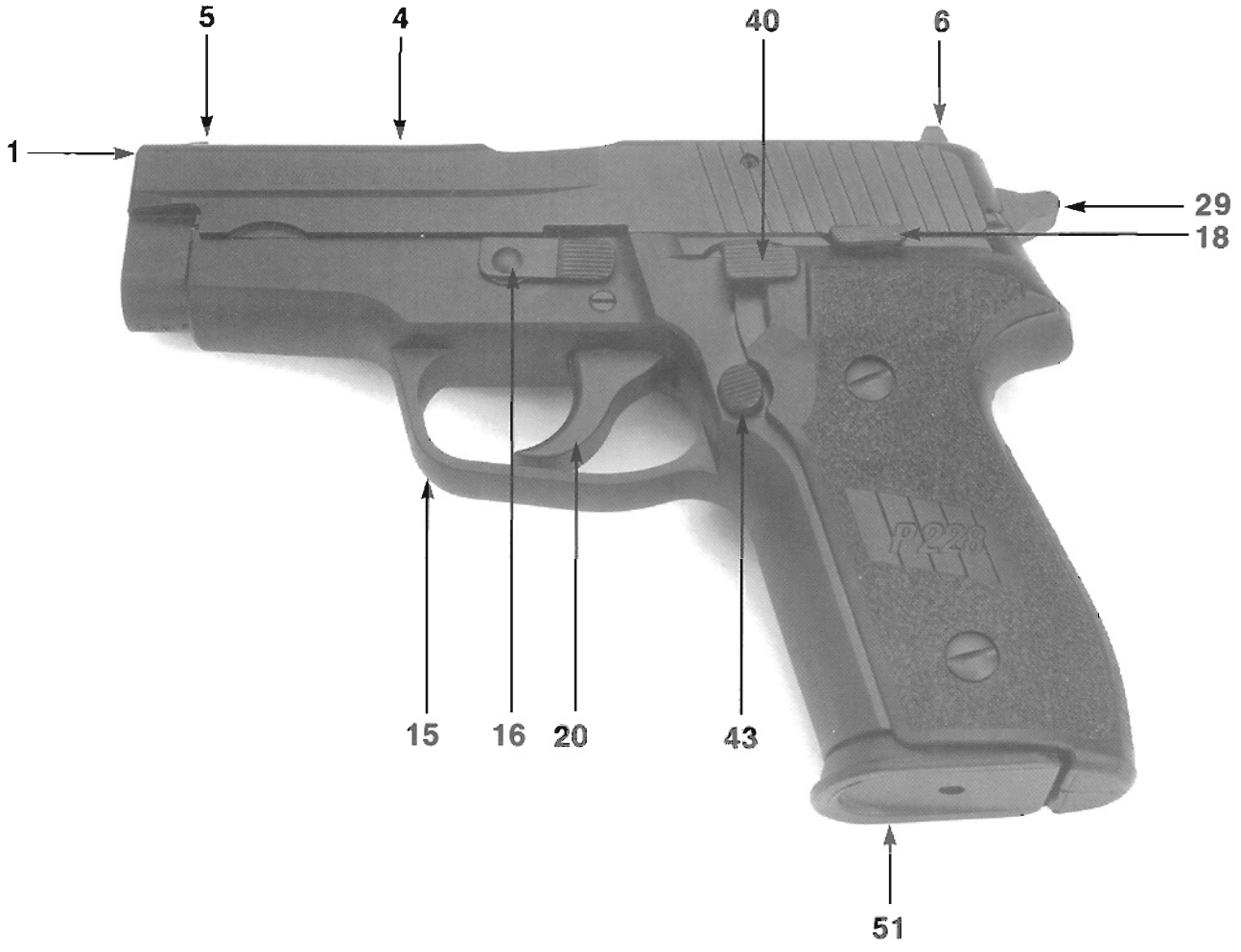
1.2 Technical Specifications of the SIG-Sauer P228

Caliber:	9mm (9x19mm) parabellum
System of Operation:	Semiautomatic, short recoil operated
Safety System:	1) Patented automatic firing pin lock 2) Decocking lever, hammer reset and safety intercept notch

Dimensions and Weights

Length, overall	7.08 in.
Height, overall	5.35 in.
Width, overall	1.46 in.
Barrel length	3.86 in.
Rifling lead	9.84 in.
Number of rifling grooves	6
Sight base	5.71 in.
Weight, excluding magazine	26.10 oz.
Weight of empty magazine	3.0 oz.
Trigger pull weight (lbs)	DA 12.12/SA 4.4
Magazine capacity (rounds)	13 (optionally, 15/20)

NOTE: *Above subject to change without notice. Parts are interchangeable. Broken parts must be replaced, do not repair broken or damaged parts.*



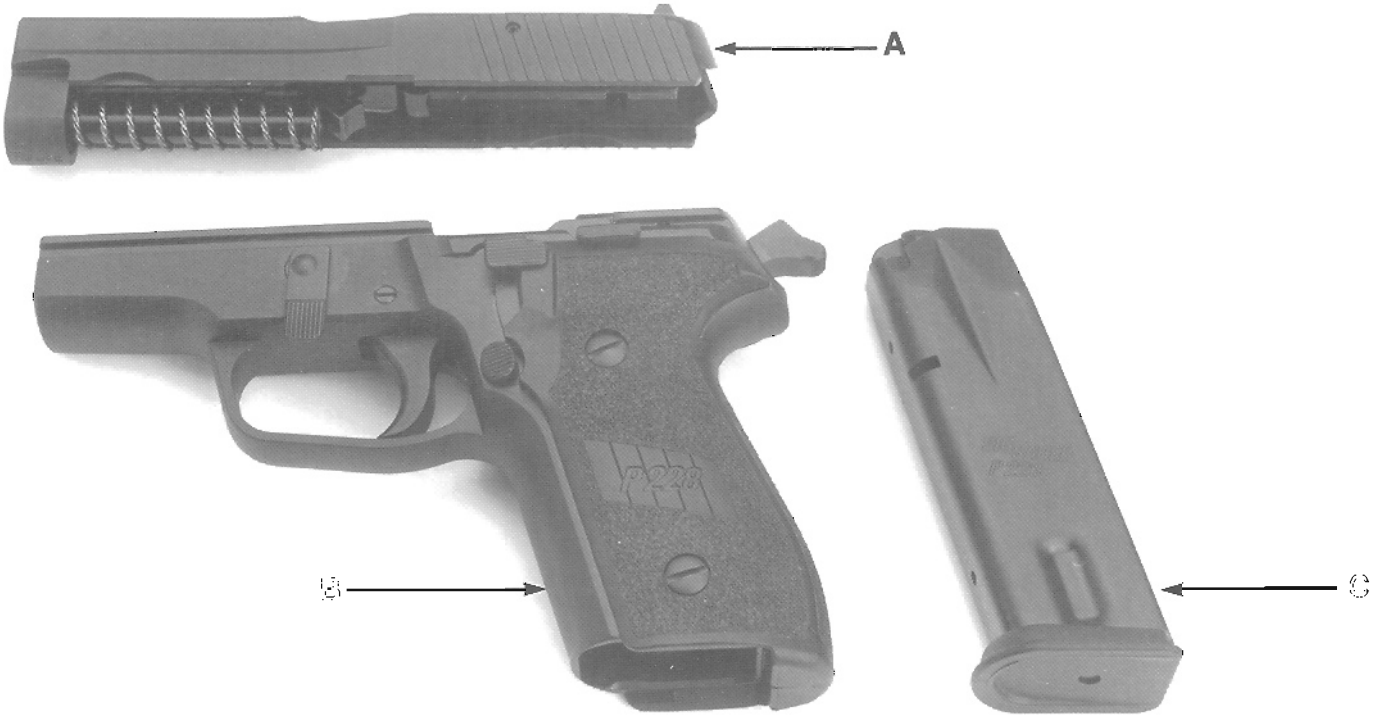
The SIG-SAUER P228 9mm Pistol With Magazine Inserted

1.	Barrel	18.	Slide catch lever
4.	Slide	20.	Trigger
5.	Front sight	29.	Hammer
6.	Rear sight	40.	Decocking lever
15.	Frame	43.	Magazine catch
16.	Take-down lever	51.	Magazine

NOTE: *The reference numbers identifying individual parts throughout this manual are identical with the numbers in the parts list section.*

2.1 Weapon

2.1.1 General

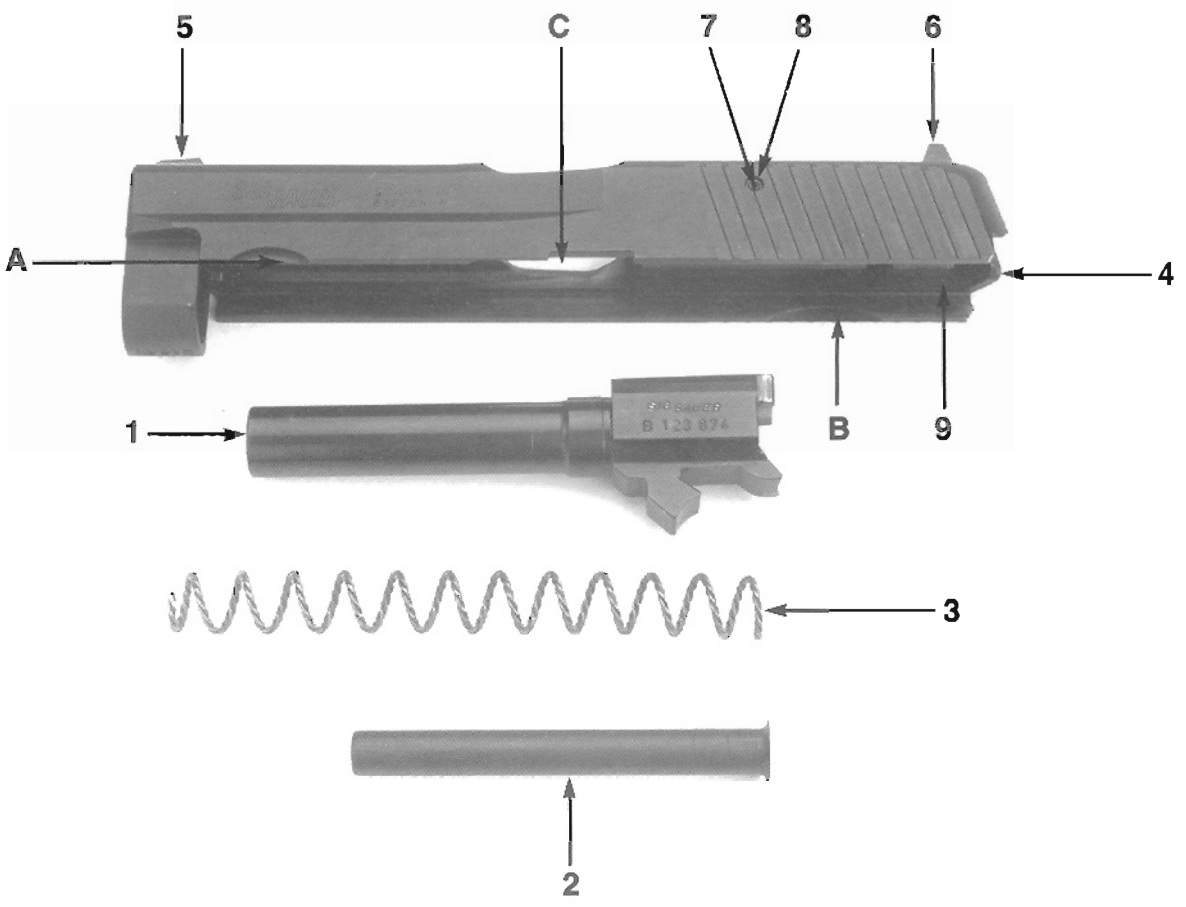


The Three Main Components of the SIG-SAUER P228 9mm Pistol

A. The Slide
B. The Frame
C. The Magazine

2.1 Weapon (cont'd)

2.1.2 The Slide



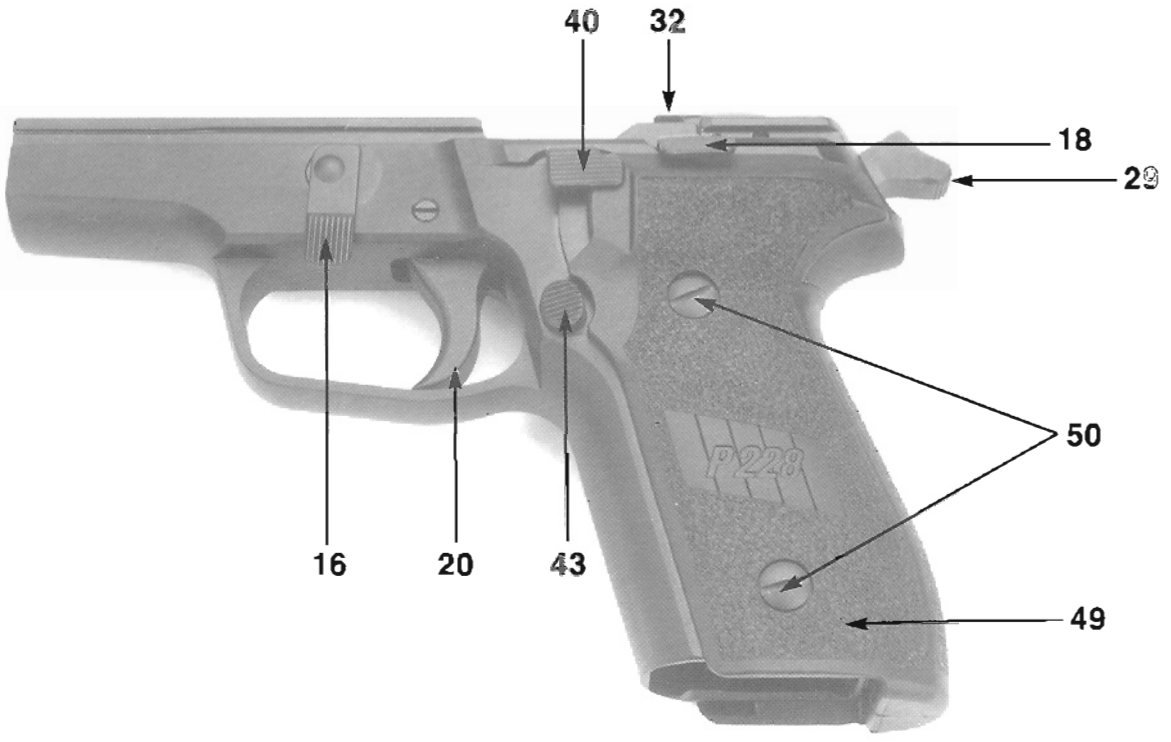
The Slide

1. Barrel
2. Recoil spring guide
3. Recoil spring
4. Slide
5. Front sight
6. Rear sight
7. Inner pin H.D.
8. Outer pin H.D.
9. Breechblock

A. Takedown lever recess
B. Disconnector recess
C. Slide arresting notch

2.1 Weapon (cont'd)

2.1.3 The Frame

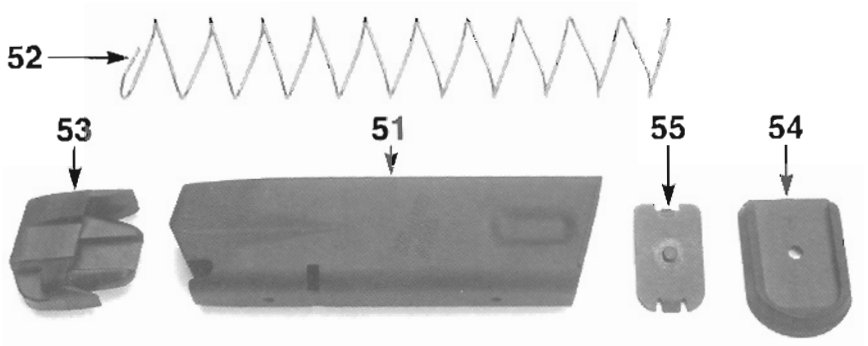


The Frame

16. Takedown lever
18. Slide catch lever
20. Trigger
29. Hammer
32. Ejector
40. Decocking lever
43. Magazine catch
49. Left grip plate
50. Grip plate screws

2.1 Weapon (cont'd)

2.1.4 The Magazine



The Magazine

51. Magazine tube
52. Magazine spring
53. Magazine follower
54. Magazine floorplate
55. Magazine insert

NOTES

NOTE: *The operations described hereafter (loading, reloading, and unloading) are to be carried out with the trigger finger off of the trigger and the muzzle pointing in a safe direction. In addition, descriptions of the pistol will be made as if the operator were pointing it directly away from him, as in firing.*

3.1 Loading - Sequence of Operations

1. Trigger finger off of the trigger and muzzle pointing in a safe direction.
2. Insert a full magazine and ensure that it has engaged the magazine catch (**check**).
3. Pull the slide fully to the rear and release it to chamber the first round from the magazine.
4. You may either fire the pistol or thumb down the decocking lever (to safely lower the hammer) and place it in the holster.

3.2 Reloading - Sequence of Operations

1. Trigger finger off of the trigger and muzzle pointing in a safe direction.
2. Depress the magazine catch to remove the empty magazine.
3. Insert a fresh magazine and ensure that it has engaged the magazine catch (**check**).
4. If the slide is locked back, either pull it to the rear slightly and release it or thumb down the slide catch lever.
5. You may either fire the pistol or thumb down the decocking lever (to safely lower the hammer) and place it in the holster.

3.3 Unloading - Sequence of Operations

1. Trigger finger off of the trigger and muzzle pointing in a safe direction.
2. Remove the magazine.
3. Pull the slide to the rear to eject the chambered round, inspect both the chamber and the magazine well to make sure the pistol is unloaded. **Check a second time.**
4. Let the slide go forward and thumb down the decocking lever.

3.4 Firing the Pistol - Sequence of Operations

1. Remove the pistol from its holster and assume a shooting position.
2. Pull the trigger to fire (no external safety lever has to be operated).
3. When through firing, remove the trigger finger from the trigger, thumb down the decocking lever, reload, unload, or place the pistol back in its holster.

3.5 Cycle of Operation

In order to understand the functioning of a semiautomatic pistol, the cycle of operation must be understood.

Feeding: Placing the round in the path of the slide.

Chambering: Moving the round from the magazine to the chamber.

Locking: Sealing the round in the chamber and locking the breech end of the barrel into the slide.

Firing: Ignition of the primer and firing the round.

Unlocking: Unsealing the breech end of the barrel and unlocking the barrel from the slide.

Extracting: "Pulling" the spent cartridge from the chamber.

Ejecting: "Pushing" the spent cartridge out of the ejection port.

Cocking: Returning the firing mechanism to the cocked position, ready to fire another round.

4.1 Disassembly - Sequence of Operations

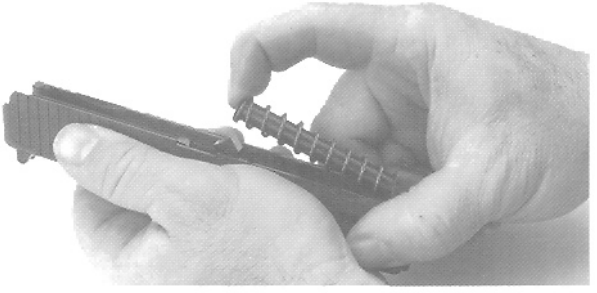
1. Unload and check the chamber both visually and physically. **Check again!**
2. Lock the slide to the rear by inserting an **EMPTY** magazine and pulling the slide to the rear until slide is locked back by the slide catch lever, or simply pull the slide to the rear and push the slide catch lever up into the arresting notch in the slide.
3. Thumb down the take-down lever to the vertical position.

4. Remove the empty magazine.

4.1 Disassembly (cont'd)

5. Pull the slide slightly to the rear to disengage the slide catch lever, then move the slide forward and off the frame, allowing the recoil spring to gradually release tension.

6. Remove the recoil spring and guide by grasping the end of the guide and pulling it away from the barrel lug, gradually releasing the remaining recoil spring tension.



7. Remove the barrel by gripping the large lug on the bottom of the barrel and lifting it up and away from the slide.

4.2 Assembly - Sequence of Operations

1. Hold the slide upside down and insert the barrel, muzzle end first. Then install the recoil spring and guide (the flared end of the guide is placed in the recess on the front of the large lug of the barrel).

CAUTION: *Ensure the barrel and slide are in the locked position during installation of the slide onto the frame.*

2. Insert an empty magazine into the frame.
3. Install the slide onto the frame and pull it to the rear until the slide catch locks it back (this will occur automatically with magazine installed).
4. Thumb up the take-down lever and remove magazine.
5. Depress the slide catch lever to release the slide.
6. Thumb down the decocking lever to lower the hammer.
7. **CARRY OUT FUNCTION CHECKS** - See Section **6.0 - WEAPON INSPECTION**

NOTES

5.1 Disassembling the Magazine - Sequence of Operations

1. Invert the magazine.
2. Depress the magazine insert with a suitable tool through the opening in the floor plate.
3. Slide the floor plate off the magazine tube, ensuring magazine spring tension is gradually released.

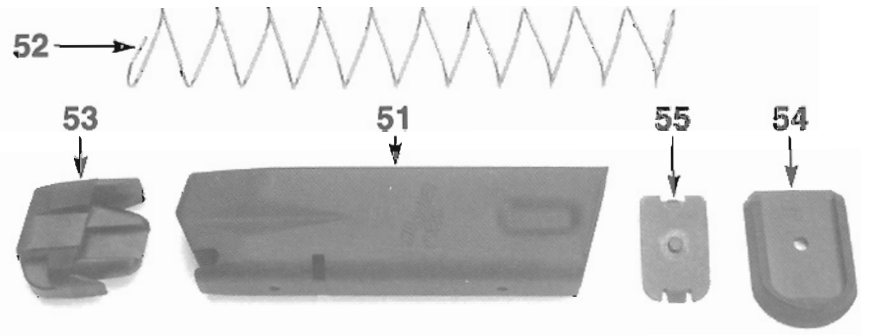
NOTE: *The magazine spring is under great pressure - keep work operation away from the face.*

4. Remove the magazine spring and magazine follower from the magazine tube.

5.2 Assembling the Magazine - Sequence of Operations

1. Place the magazine follower on the magazine spring (raised end of spring under the front of the magazine follower).
2. Hold magazine tube vertically and insert the magazine follower and magazine spring.
3. Invert the magazine, attach magazine insert to the end of the magazine spring, compress the magazine spring fully into the magazine tube and install the floor plate.

NOTE: *Be sure that the insert locks into the floorplate opening.*



Magazine Disassembled

51. Magazine tube
52. Magazine spring
53. Magazine follower
54. Magazine floorplate
55. Magazine insert

6.1 General

The armorer should carry out the following inspections:

1. Function inspection
2. Parts inspection

6.2 Function Inspection

A function check is to be carried out on the assembled weapon:

1. To determine causes of malfunction
2. After repair work
3. Following cleaning and during weapon inspections, as well as after parts inspection and lubrication

6.2.1 Unload and Make the Weapon Safe

Remove the magazine, pull the slide to the rear to eject the chambered round, inspect both the chamber and magazine well to be sure the pistol is unloaded. **Check a second time.** (See Section 3.3 **Unloading Procedures.**)

6.2.2 Trigger and Hammer Mechanism

A. Decocking lever

1. Clear the pistol.
2. Cock the hammer.
3. Place moderate pressure on the back of the hammer to ensure positive sear engagement with the hammer.
4. Thumb down the decocking lever and check that the trigger returns to the double action position.
5. Check that the hammer has come to rest in the safety intercept notch before reaching the extreme dropped position.

B. Double action function

1. With hammer decocked, pull the trigger.
2. Check that the hammer moves to the rear, drops forcefully and rebounds to the safety intercept notch after striking the firing pin.

6.2 Function Inspection (cont'd)

6.2.2 Trigger and Hammer Mechanisms (cont'd)

C. Interruption of trigger function or disconnector operation

1. With hammer forward and the trigger retained to the rear, pull the slide to the rear and release it.

2. Check that the hammer is retained in the cocked position (trigger remains pulled).

D. Single-action function

1. Release the trigger.

2. Check that the trigger bar engages the safety lever once more and, that upon pulling the trigger again, the hammer is released.

6.2.3 Recoil Spring

Check the force of the recoil spring and smooth cycling of the slide. Carry out the loading movement and check that the slide/barrel group springs forward smartly and locks. Repeat once.

6.2.4 Magazine

1. Check the condition of the magazine tube, the lips and the floorplate.

2. Check for correct interlocking of the floorplate and insert.

3. Check for smooth movement and springing of the magazine follower.

4. Check for ease of insertion of the magazine into the frame and positive locking.

5. Check for free in and out movement of the magazine catch.

6. With an empty magazine in place, pull the slide to the rear and release it. The slide must be arrested in the rear position by the slide catch lever.

6.2 Function Inspection (cont'd)

6.2.5 Slide Catch Lever

1. Thumb down the slide catch lever and check that the slide is released and forcefully springs forward.

2. Thumb down the decocking lever.

6.3 Parts Inspection

6.3.1 General

This inspection includes a close check of individual parts for damage such as cracks, unacceptable deformation, smoothness and condition of all sliding and bearing surfaces, as well as function and condition of all springs. This inspection should be carried out as a normal part of preventive maintenance each time the pistol is disassembled.

The barrel, slide and frame should be inspected to ensure serial number agreement.

Parts inspection is to be performed with the weapon unloaded, disassembled and cleaned.

6.3.2 Areas of Inspection

A. The Barrel

1. Bore and chamber

2. Locking surfaces

3. Feed ramp

4. Muzzle

B. Recoil spring and recoil spring guide

6.3 Parts Inspection (cont'd)

6.3.2 Areas of Inspection (cont'd)

C. The Slide

1. Ejection port, locking surfaces
2. Extractor
3. Firing pin and firing pin spring
4. Projection of the firing pin through the breech face
5. Arresting notch for the slide catch lever
6. Pins H.D. of the breechblock
7. Safety lock and safety lock spring
8. Front and rear sights, contrast markings, tightness of fit
9. Finish

D. The Frame

1. Take-down lever
2. Locking insert
3. Trigger, trigger pivot pin, trigger bar, and trigger bar spring
4. Decocking lever, bearing, and spring
5. Slide catch lever and slide catch lever spring
6. Ejector
7. Sear, sear spring and safety lever
8. Hammer, hammer stop, reset spring
9. Hammer strut assembly

6.3 Parts Inspection (cont'd)

6.3.2 Areas of Inspection (cont'd)

D. The Frame (cont'd)

10. Magazine catch
11. Magazine catch support plate
12. Grip plates, grip plate screws
13. Finish

E. The Magazine

1. Magazine tube and lips
2. Magazine floorplate
3. Magazine insert
4. Magazine spring
5. Magazine follower

7.1 Cleaning the Pistol

7.1.1 General

The pistol must be stored in a dry location. Humidity and rapid temperature changes are detrimental and encourage corrosion. If a pistol is not to be used for some time, lubricate it well, particularly the bore of the barrel and the exterior surfaces. Clean the pistol immediately after each use.

7.1.2 Cleaning Procedures

1. Disassemble the pistol after assuring it is UNLOADED.

2. Clean all areas with a cloth treated with a small amount of cleaning solvent.

CAUTION: *Some cleaning solvents and treated cloths may be detrimental to the finish of your weapon. Please read the manufacturers' warning labels before using.*

3. Cleaning the barrel

CAUTION: *Use of a steel brush may be harmful to the smooth barrel surface.*

   A. To remove all traces of powder residue and bullet fouling from the barrel, push a wire brush treated with cleaning solvent through the bore at least ten times, from the chamber end.

   B. Dry the barrel using a jag or slotted tip cleaning rod and cloth patches.

   C. Continue until the patches inserted into the bore return clean.

4. Reassemble the pistol.

5. Carry out function checks, see (6.2).

6. See lubrication specification (7.1.3).

7.1.3 Lubrication Specifications

DO NOT FIRE THE PISTOL WITHOUT LUBRICATION. For user level lubrication, place several small drops of oil on both the left and right sides of the frame rails. Lightly lubricate the interior and exterior of the barrel with emphasis on the locking surfaces, the muzzle top and bottom, barrel hood where it locks into the ejection port, and the locking lugs where they engage the locking insert with a light film of oil. Place several drops of oil on the recoil spring and recoil spring guide. Lightly lubricate the rib on the bottom of the breechblock along its full length. If the weapon has been further disassembled, lightly lubricate all moving parts before reassembly. Assemble the pistol and cycle the slide back and forth several times to disburse the lubricant evenly. The blued surfaces of the slide should be lightly treated with a lubricant/preservative to maintain the integrity of the finish. Wipe off any excess lubrication on the pistol's exterior. **Do not over-lubricate the weapon.**

8.1 Function of the Trigger Assembly

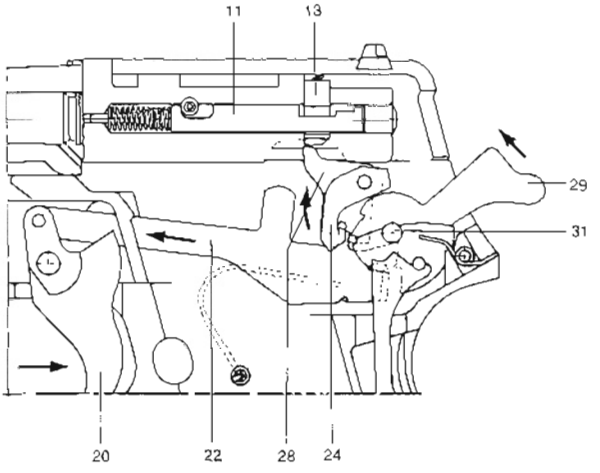
8.1.1 Double Action/Single Action Function

With the weapon loaded and the hammer decocked, the first shot can be fired double-action by pulling the trigger.

By pulling the trigger, the trigger bar is drawn forward and moves the hammer rearward. The trigger bar also operates the safety lever to lift the safety lock. The safety lever draws the sear out of register with the hammer while the safety lock is raised and frees the firing pin. Continued movement of the trigger causes the trigger bar to release the hammer which strikes the firing pin and fires the cartridge.

With the weapon loaded and the hammer cocked, the first shot can be fired single-action by pulling the trigger.

When pulling the trigger in the single-action mode, the trigger bar is drawn forward, pivoting the safety lever which lifts the safety lock to free the firing pin, and moves the sear to release the hammer.



Function of the Trigger Assembly

11.	Firing pin	24.	Sear
13.	Safety lock	28.	Safety lever
20.	Trigger	29.	Hammer
22.	Trigger bar	31.	Hammer Pivot Pin

8.1 Function of the Trigger Assembly (cont'd)

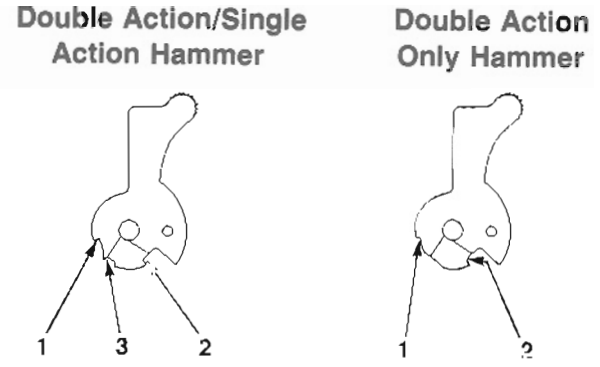
8.1.2 Double Action Only Function

Pistols equipped with the Double Action Only option fire each shot with no change in the trigger pull. The hammer starts from the forward position resting in the safety intercept notch each time the weapon is fired.

By pulling the trigger the trigger bar is drawn forward and moves the hammer rearward. The trigger bar also operates the safety lever, which raises the safety lock freeing the firing pin and draws the sear free of the hammer. The hammer is released by the trigger bar as it reaches its fully cocked position and is allowed to fall forward striking the firing pin. Each time the slide is cycled, the hammer will fall to the rest position in the safety intercept notch.

Double Action/Single Action weapons may be converted to the Double Action Only function by simply replacing the original hammer with one designed for Double Action Only operation and removing the decocking lever assembly. The left grip plate may also be replaced. Conversion of a Double Action Only model to Double Action/Single Action function may be accomplished by the installation of the decocking lever assembly with appropriate grip plate and a Double Action/Single Action hammer.

The cycle of operation of the Double Action Only pistols differ from the Double Action/Single Action pistols in that the last step is eliminated as referred to in Section 3.5 of this Manual. No single action mechanism exists in the Double Action Only pistols to lock the hammer to the rear in the cocked position.



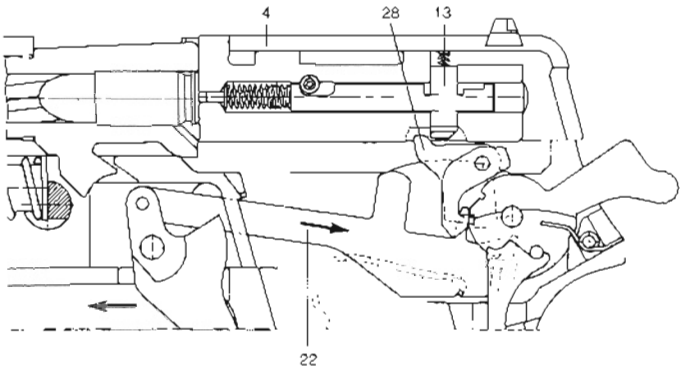
Key: 1. Safety Intercept Notch
2. Double Action Notch
3. Single Action Notch

8.1 Function of the Trigger Assembly (cont'd)

8.1.3 Disconnector Operation (Automatic Interruption of Trigger Function)

1. Upon firing - the blowback reaction thrusts the slide and barrel rearward. The slide disconnects the trigger bar from the safety lever, which allows the firing pin and firing pin safety lock to reset to the locked position, as well as releasing the sear. The sear, under pressure of the sear spring, returns to its initial position and arrests the hammer as the slide goes forward. In order to fire the next shot, the trigger must be released to allow the trigger bar and safety lever to engage.

2. Incomplete locking - if the slide does not fully return into battery due to a weapon, magazine or ammunition malfunction, the connection between the firing pin safety lock and safety lever is not made. Therefore, the safety lock remains engaged, blocking the firing pin. In this disconnected state, the slide also cams down the trigger bar and effectively interrupts subsequent trigger functions.



Trigger Assembly, Disconnector Operated

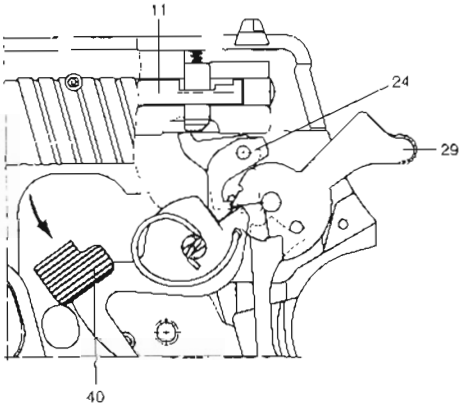
4.	Slide	22.	Trigger bar
13.	Safety lock	28.	Safety lever

8.1 Function of the Trigger Assembly (cont'd)

8.1.4 Decocking Lever, Safety Intercept Notch and Hammer Reset Spring

The decocking lever allows the cocked hammer to be safely lowered into the safety intercept notch. In this condition, the weapon can be carried with a cartridge in the chamber, ready for immediate use. The safety intercept notch is the rest position of the hammer in the double-action position. It also becomes effective if the hammer should slip while someone tries to thumbcock or drops the weapon. Thumbing down the decocking lever moves the sear out of register with the hammer's single action notch. The hammer then drops forward, and the decocking lever returns to its original position. The hammer is arrested by the sear engaging in the safety intercept notch. During this operation, the safety lever remains in its rest position and does not lift the safety lock. Hence, during and after decocking, the firing pin remains constantly locked. This ensures that decocking the weapon as instructed cannot cause an inadvertent discharge of a cartridge.

The hammer reset spring maintains contact with the hammer ensuring constant engagement of the safety intercept notch, except when the operation of firing takes place.



Function of the Decocking Lever and Safety Intercept Notch

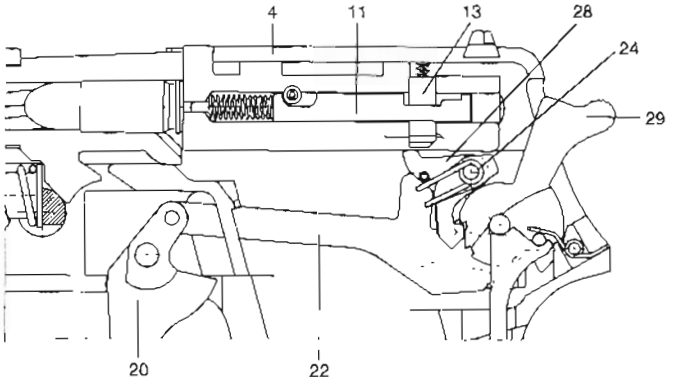
11.	Firing pin	29.	Hammer
24.	Sear	40.	Decocking lever

8.1 Function of the Trigger Assembly (cont'd)

8.1.5 Firing Pin Safety Lock

In order to achieve optimum safety, the firing pin is locked in the slide by the safety lock. When the trigger is pulled, the trigger bar pivots the safety lever to raise the safety lock (thus freeing the firing pin) immediately prior to releasing the hammer.

When pulling the trigger in the single-action mode, the trigger bar is drawn forward, pivoting the safety lever which lifts the safety lock to free the firing pin, and moves the sear to release the hammer. After each shot, the firing pin spring retracts the firing pin; allowing engagement of the safety lock during each cycle of operation. The combination of the automatically locked firing pin and the positive return of the hammer into the safety intercept notch effectively prevents inadvertent firing of the pistol whether cocked or decocked.



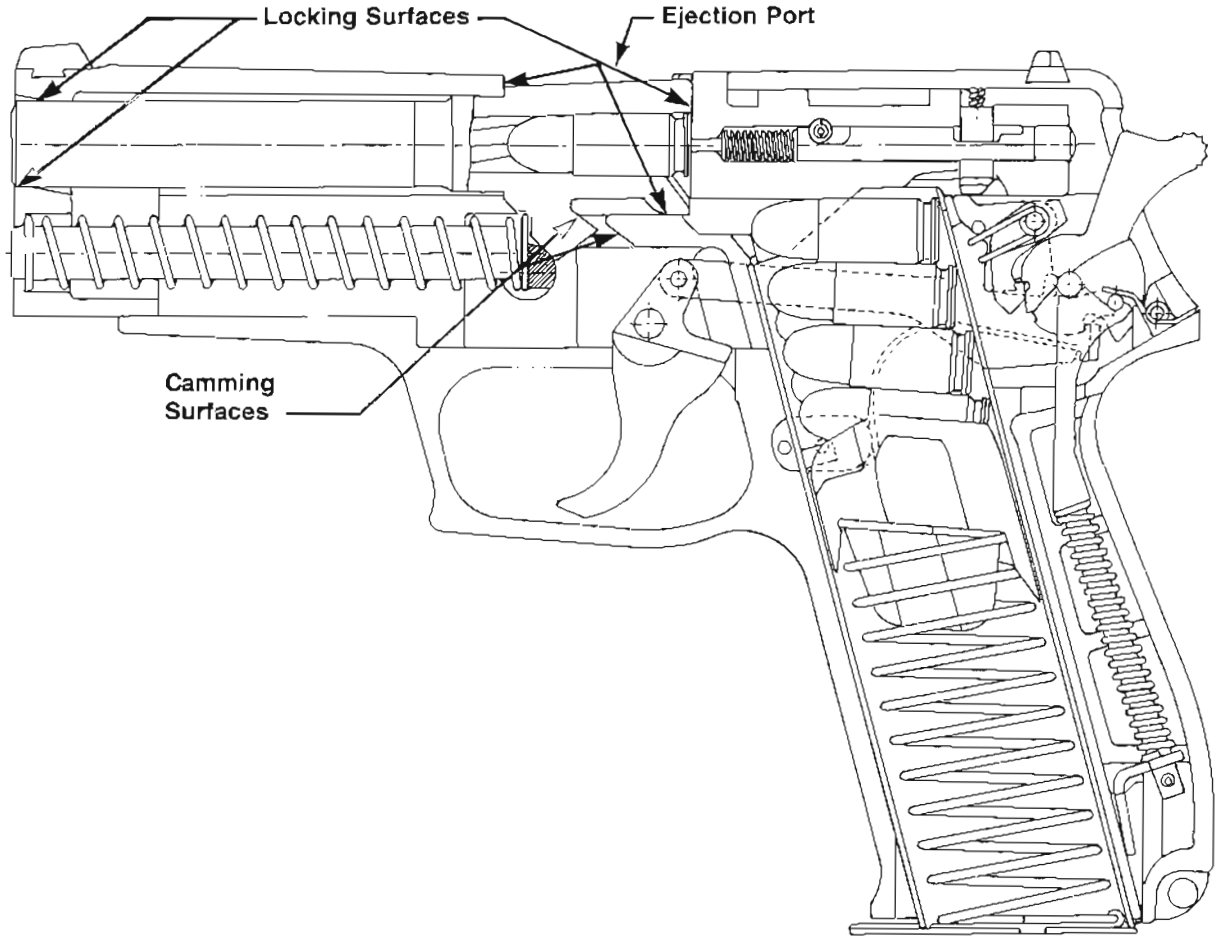
Function of the Firing Pin Safety Lock

4.	Slide	22.	Trigger bar
11.	Firing pin	24.	Sear
13.	Safety lock	28.	Safety lever
20.	Trigger	29.	Hammer

8.2 Locking and Unlocking

At the instant of firing, the weapon is locked: the barrel is seated on the upper step of the locking insert, and is locked into the slide. The blowback reaction thrusts the barrel/slide group rearward against the recoil spring. After recoiling about 1/8", the barrel is cammed down and arrested by the locking insert in the frame. The slide continues rearward, extracting and ejecting the fired cartridge case while compressing the recoil spring.

The compressed recoil spring thrusts the slide forward, stripping a round from the magazine, and chambering it on the way to locking into battery. The barrel and slide achieve lock-up approximately 1/8" before reaching battery.



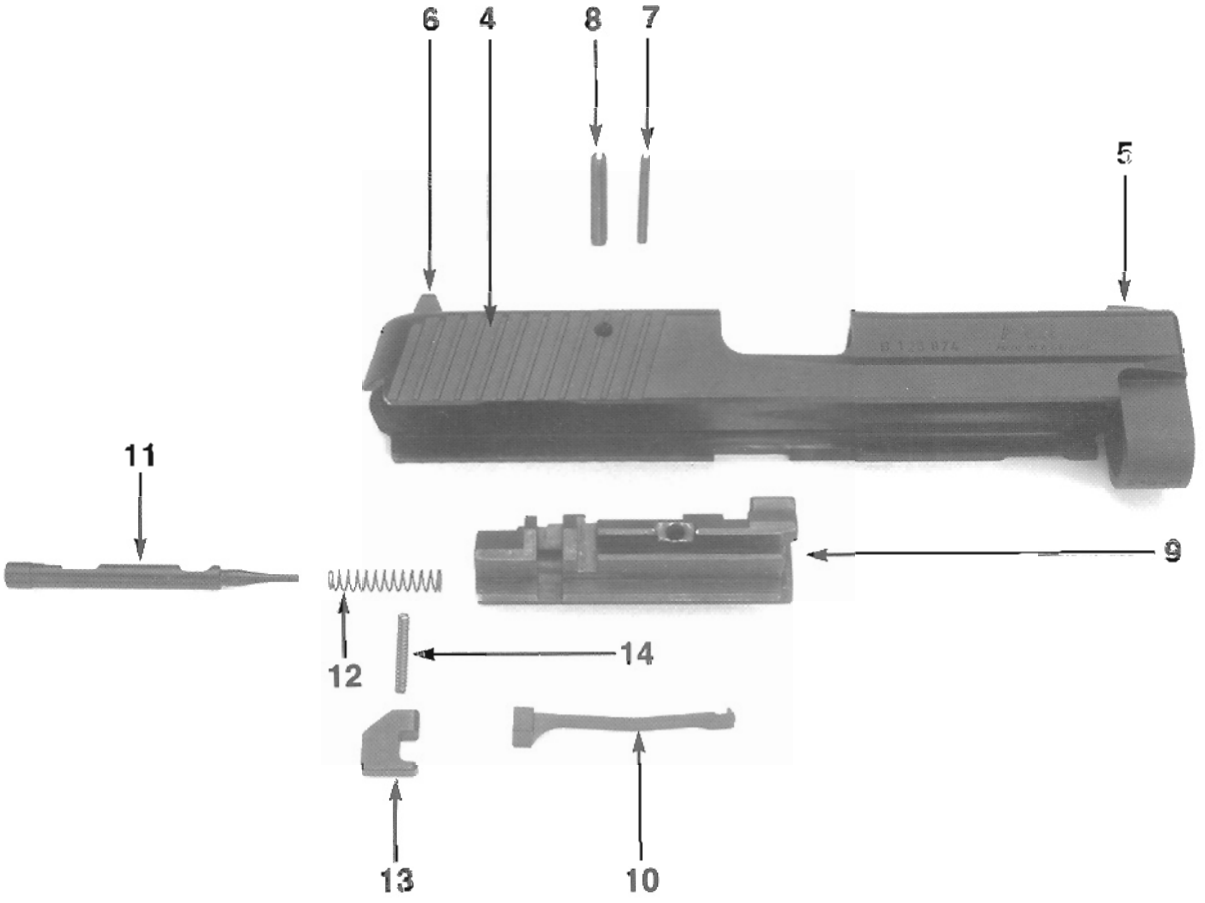
Locking and Camming Surfaces

8.3 Arresting Mechanism (Slide Catch Lever)

After firing the last round, the slide is locked to the rear, in an open position.

The follower of the empty magazine raises the slide catch lever which engages the arresting notch of the slide, and locks it to the rear (in an open position). By depressing the slide catch lever, the slide is released and springs forward into battery.

NOTES



Slide with Breechblock Removed and Disassembled

4. Slide
5. Front sight
6. Rear sight
7. Inner pin H.D.
8. Outer pin H.D.
9. Breechblock
10. Extractor
11. Firing pin
12. Firing pin spring
13. Firing pin safety lock
14. Firing pin safety lock spring

9.1 Removal and Disassembly of the Breechblock

Sequence of Operations

1. Place the slide on a suitable surface.
2. Knock out the inner and outer pins H.D. with a 1/8" roll pin punch.

NOTE: *The inner and outer pins H.D. are not reusable and must be replaced once removed from the slide.*

3. Remove the breechblock from the slide.
4. Press the firing pin forward and extract the firing pin safety lock and firing pin safety lock spring from the side of the breechblock.
5. Remove the firing pin safety lock spring from the firing pin safety lock.
6. Remove the firing pin and firing pin spring from the breechblock.
7. Loosen the extractor at its rear by means of a 1/8 " screwdriver; and, while guiding the claw, remove it from the breechblock.
8. By simultaneous turning and pulling in a clockwise direction, remove the firing pin spring from the firing pin. (**NOTE:** grip tightly where the firing pin spring attaches to the firing pin.)

9.2 Assembly and Installation of the Breechblock

Sequence of Operations

1. With narrow end leading, push the firing pin spring onto the firing pin.
2. Insert the extractor parallel from the side until the rear rectangular end is properly seated.
3. Insert the firing pin into the breechblock bore, with the cut-outs pointing upwards, towards the top of the breechblock.
4. Push the firing pin forward, insert the firing pin safety lock from the side and seat it, locking the firing pin into the breechblock.
5. Place the firing pin safety lock spring in the safety lock.

9.2 Assembly and Installation of the Breechblock (cont'd)

Sequence of Operations (cont'd)

6. Start the outer pin H.D. (with the slot at 12 o'clock), into the slide, so that it is flush with the inside of the slide.

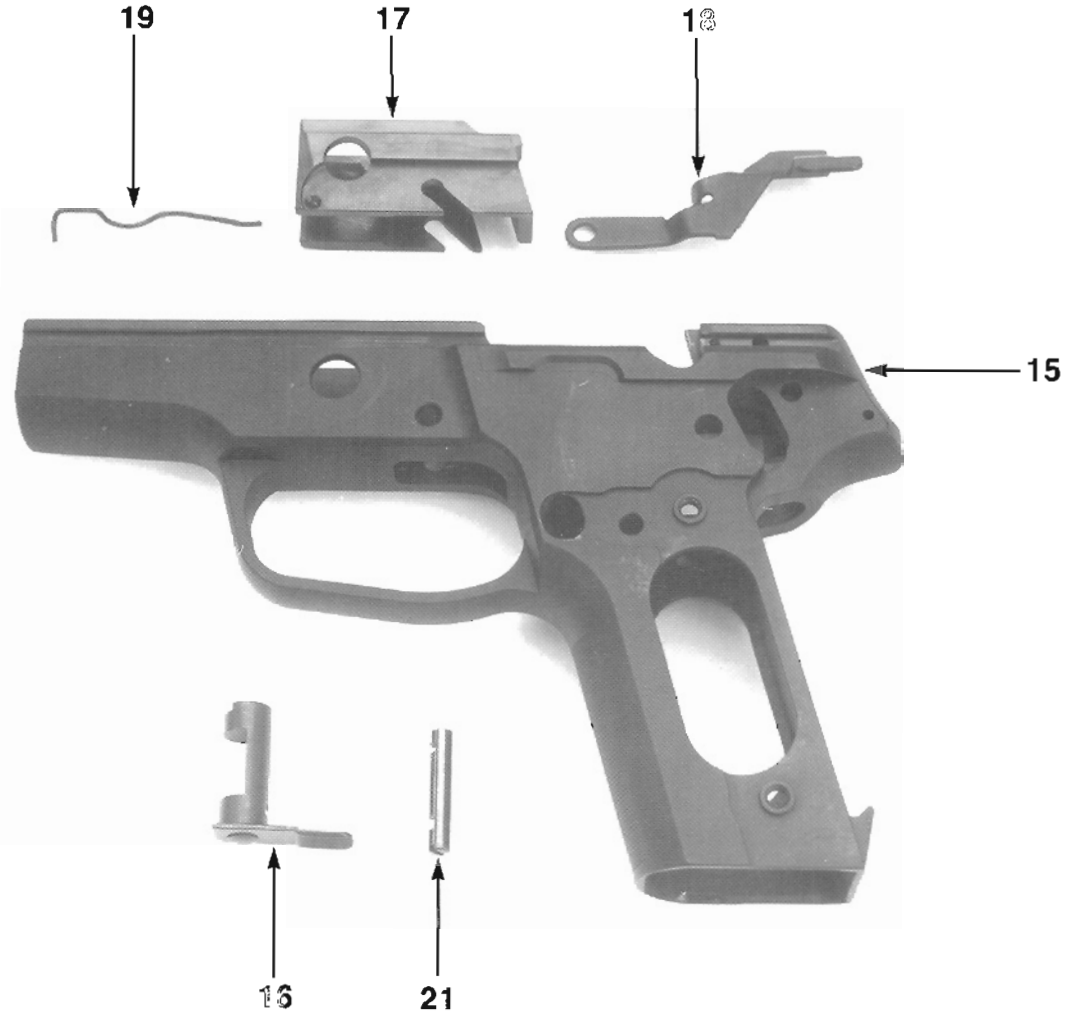
7. While holding the breechblock by its under rib, insert it straight into the slide, ensuring that it is fully seated.

8. With the thumb and index finger holding the breechblock in place, drive in the outer pin H.D. until it enters the first half of the breechblock. Depress the firing pin slightly to allow the outer pin H.D. to pass, and retain it. At this point, start the inner pin H.D.with its slot positioned opposite that of the outer pin H.D.and drive it flush. Then continue installation of the inner and outer pins H.D. until they are centered in the slide.

NOTE: *The slot of the outer pin H.D.should point upward at 12 o' clock and the slot of the inner pin H.D.should point down at 6 o' clock.*

9. Check to ensure that the firing pin and the firing pin safety lock are functioning safely and smoothly.

NOTES



Locking Insert with Slide Catch Lever Spring and Take-down Lever

15. Frame
16. Take-down lever
17. Locking insert
18. Slide catch lever
19. Slide catch lever spring
21. Trigger pivot pin

10.1 Locking Insert

10.1.1 Removal

Sequence of Operations:

1. Remove the slide from the frame.
2. Decock the hammer using the decocking lever.
3. Rotate the take-down lever upwards to the vertical position. While turning and pulling simultaneously push the take-down lever from the opposite side of the frame and extract it.
4. Push the locking insert and slide catch lever spring forward, removing them from the frame.
5. Remove the slide catch lever spring from the locking insert.

10.1.2 Installation

Sequence of Operations:

1. Insert the slide catch lever spring, with its hook in the hole of the locking insert.
2. Position the trigger pivot pin so that the notches are down and the slot at the pin's end is horizontal.
3. Insert the locking insert into the frame from the front until the holes for the take-down lever are aligned.
4. Insert the take-down lever vertically, fully seating it by turning and simultaneously pushing inward.

NOTE: *Trigger and hammer must be forward in the double action position before removing or installing the locking insert.*

10.2 Grip Plates, Left and Right

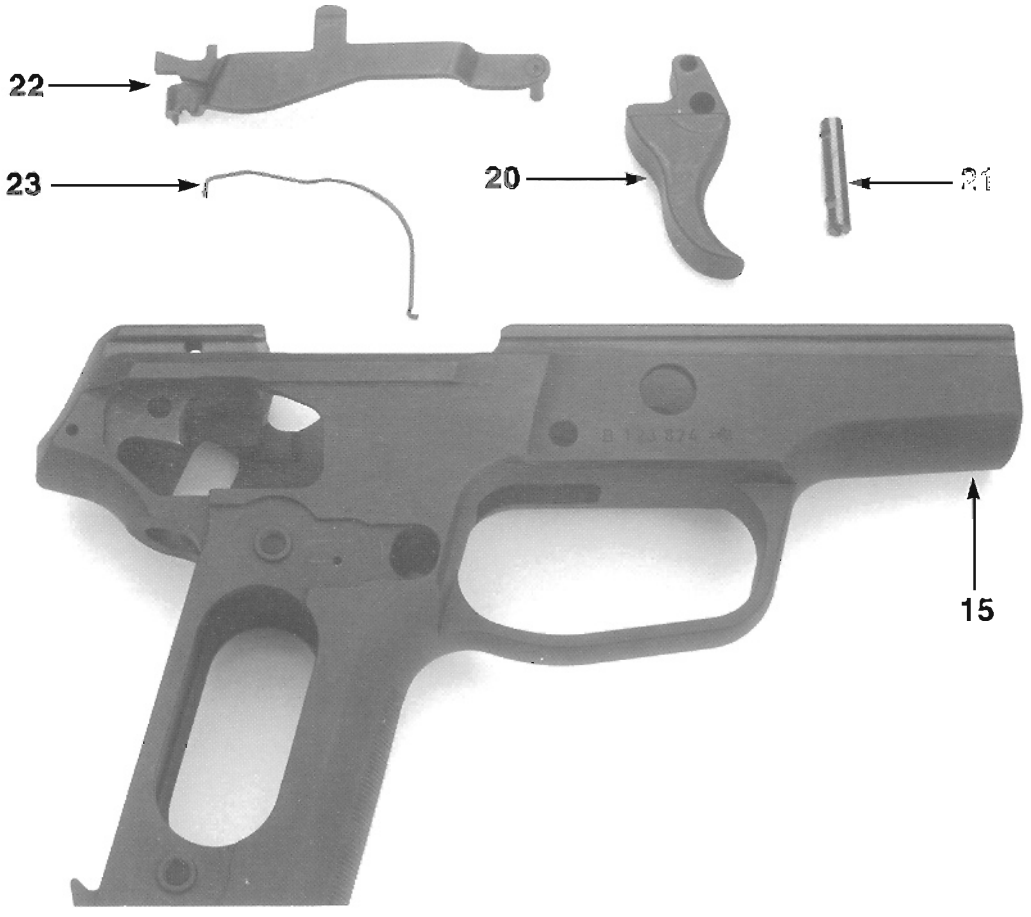
10.2.1 Removal

Sequence of Operations:

1. Using a proper fitting screwdriver, remove the grip plate screws.
2. Carefully remove the right grip plate and the left grip plate.

10.2.2 Installation

To install, reverse the order used for removal.



Trigger Assembly

15. Frame
20. Trigger
21. Trigger pivot pin
22. Trigger bar
23. Trigger bar spring

10.3 Trigger Assembly

10.3.1 Disassembly

Sequence of Operations:

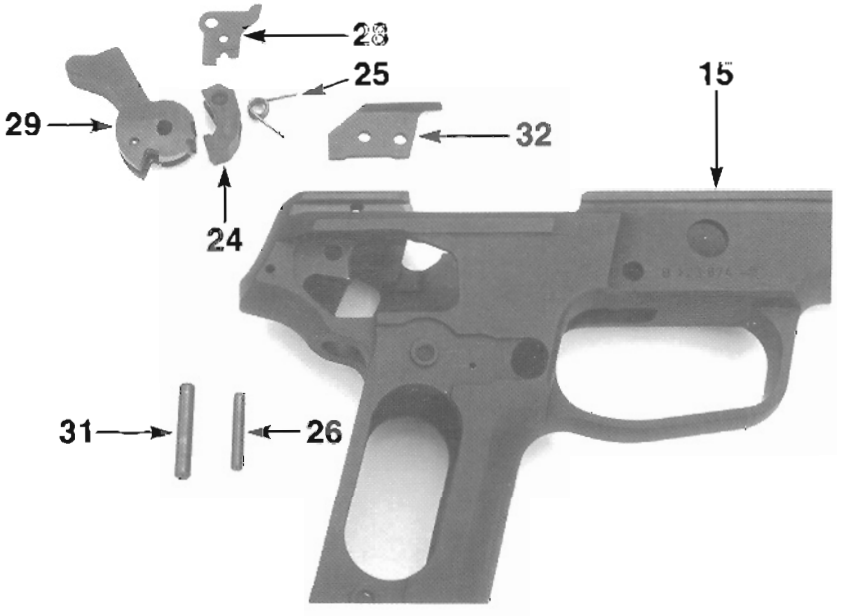
1. Remove the takedown lever.
2. Remove the locking insert.
3. Remove the right grip plate and the left grip plate.
4. Unhook the trigger bar spring and remove it.
5. Push out the trigger pivot pin from either side.
6. Remove the slide catch lever by lifting it up and out of the frame.
7. Remove the trigger and trigger bar from the frame, diagonally to the front and upward.
8. Disconnect the trigger bar from the trigger.

10.3.2 Assembly

Sequence of Operations:

1. Connect the trigger bar and the trigger, and place them into the frame.
2. Insert the trigger pivot pin from the right, notches down and the slot at the end of the pin left and horizontal.
3. Insert the slide catch lever, centering it on the trigger pivot pin.
4. Reinstall the trigger bar spring, making sure that it is properly positioned on the trigger bar.
5. Install the right grip plate, the left grip plate and the grip plate screws.
6. Install the locking insert and take-down lever.

10.4 Hammer Assembly



Hammer Assembly

15.	Frame	28.	Safety lever
24.	Sear	29.	Hammer
25.	Sear spring	31.	Hammer pivot pin
26.	Sear pin	32.	Ejector

10.4.1 Disassembly

Sequence of Operations:

1. Remove the take-down lever, locking insert, right grip plate, left grip plate, and trigger assembly.
2. Compress the main spring seat upwards until it is free from its mounting.
3. Remove the main spring seat, main spring and hammer strut (hammer strut assembly) from the frame.
4. Relax the sear spring.

10.4 Hammer Assembly (cont'd)

10.4.1 Disassembly (cont'd)

5. Push out the sear pin.
6. Remove the safety lever, sear and sear spring.
7. Remove the ejector.
8. Push out the hammer pivot pin.
9. Remove the hammer.

10.4.2 Assembly

Sequence of Operations:

1. Install the hammer and hammer pivot pin.
2. Insert the hammer strut assembly through its opening in the frame.
3. Position the hammer strut into the hammer and mount the main spring seat to the frame.
4. Install the ejector.
5. Insert the sear pin into the frame from the right.
6. Install the safety lever on sear pin.
7. Fit the sear in the frame, maintain its position with the sear pin.
8. Position the sear spring in the sear, center the sear pin in the frame.
9. Tension the sear spring beneath the sear spring pin H.D.
10. Reinstall the trigger assembly, locking insert, take-down lever and grip plates.

10.5 Hammer Stop Assembly

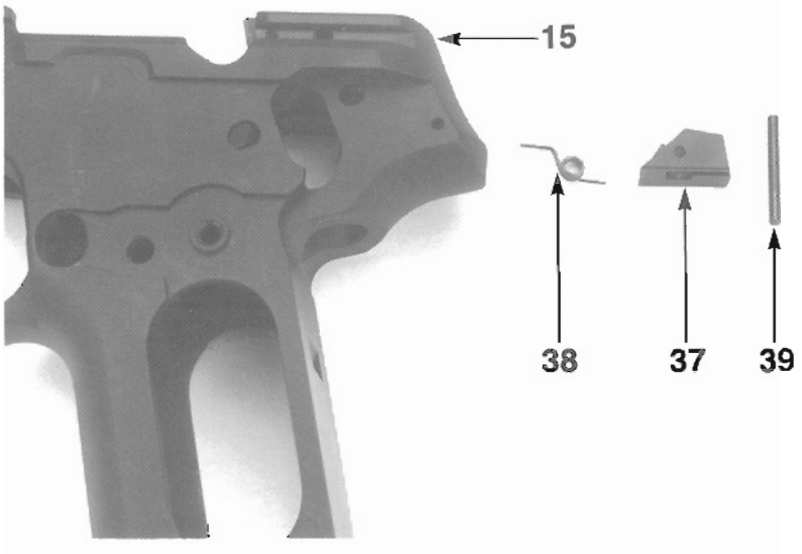
10.5.1 Removal

Sequence of Operations:

1. Push out the hammer stop pin.
2. Remove the hammer stop.
3. Remove the reset spring.

10.5.2 Installation

To install, reverse the sequence used for removal. Ensure that the arm of the reset spring rests on the hammer strut pin, located at the rear of the hammer (not shown).



Hammer Stop Assembly

15. Frame
37. Hammer stop
38. Hammer reset spring
39. Hammer stop pin

10.6 Hammer Strut Assembly

10.6.1 Disassembly

Sequence of Operations:

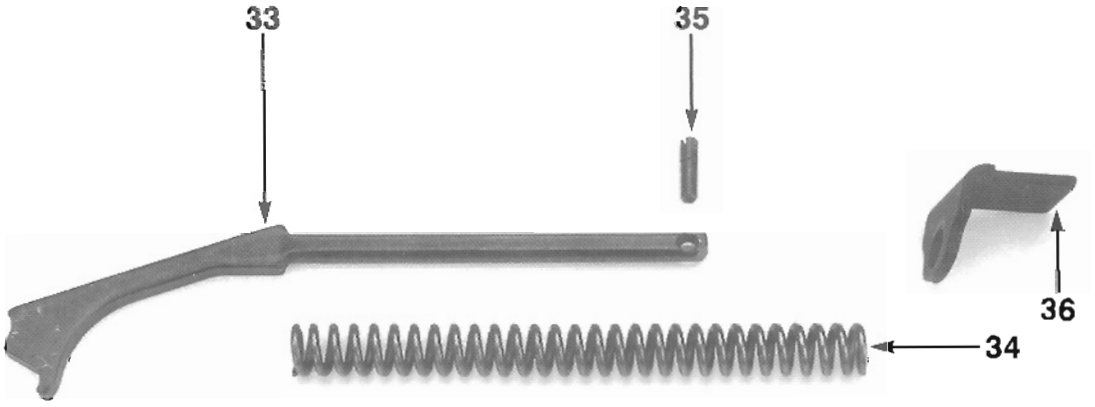
1. Remove the right grip plate and the left grip plate.
2. Lift the main spring seat until it is free from its mounting in the frame.
3. Remove the hammer strut assembly from the frame.
4. Remove the main spring pin from the hammer strut.

NOTE: *When relaxing any tensioned spring, wear adequate eye protection and use caution!*

5. Separate the main spring seat, main spring and hammer strut.

10.6.2 Assembly

For reassembly, reverse the sequence used for disassembly.



Hammer Strut Assembly

33.	Hammer strut	35.	Main spring pin
34.	Main spring	36.	Main spring seat

10.7 Decocking Lever Assembly

10.7.1 Disassembly

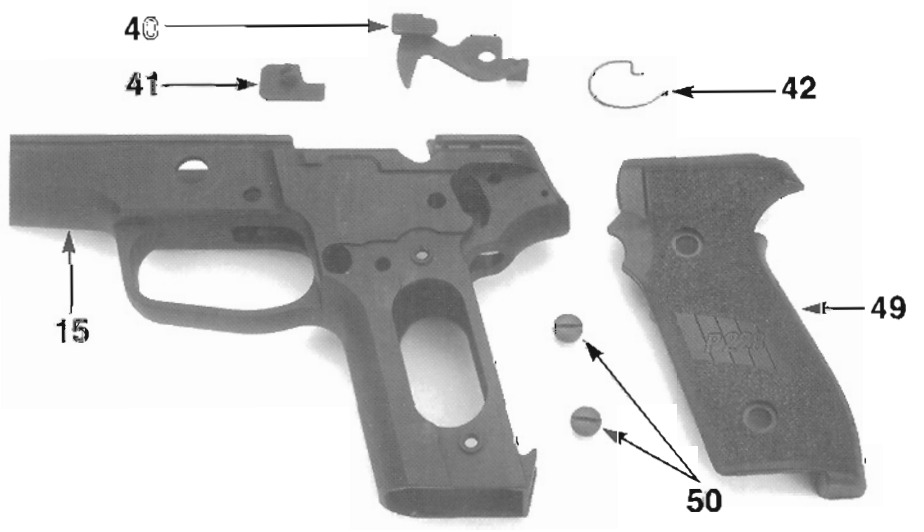
Sequence of Operations:

1. Remove left grip plate. Unhook the decocking lever spring from the rear of the decocking lever and remove.
2. Lift off the decocking lever.
3. Press the decocking lever bearing from the frame into the magazine well and remove it.

10.7.2 Assembly

Sequence of Operations:

1. Place the decocking lever bearing into the frame.
2 Mount the decocking lever into position on the decocking lever bearing.
3. Install the decocking lever spring on the decocking lever bearing and tension the spring by hooking it into the hole at the rear of the decocking lever. Install left grip plate.



Decocking Lever Assembly

15.	Frame	41.	Decocking lever bearing	49.	Left grip plate
40.	Decocking lever	42.	Decocking lever spring	50.	Grip plate screws

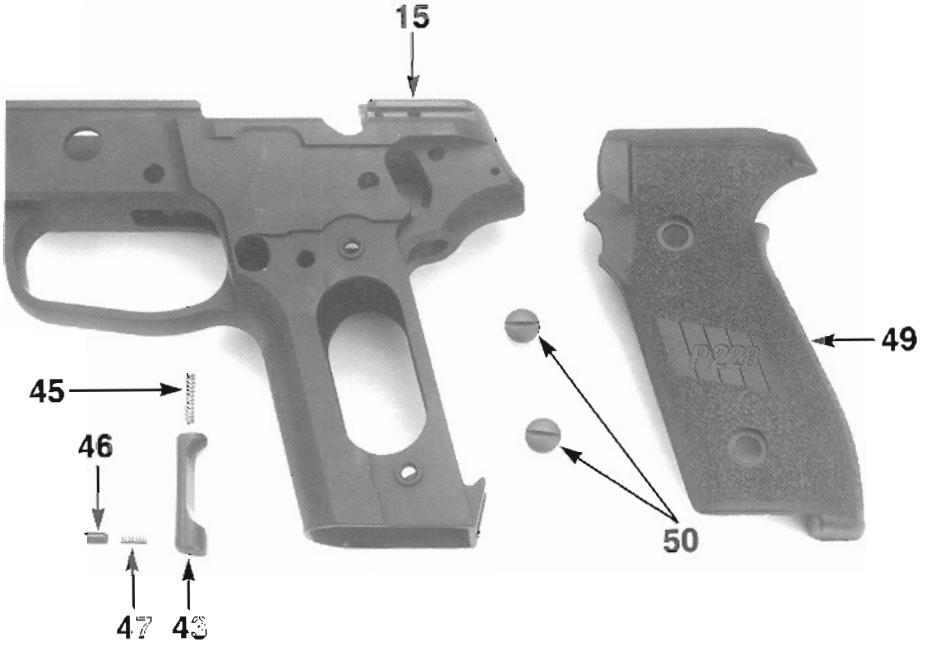
11.1 Disassembly

Sequence of Operations:

1. Remove the left grip plate.
2. Press the magazine catch stop inwards, to release the magazine catch from the frame.
3. Remove the magazine catch stop and magazine catch stop spring from the magazine catch.
4. Remove the magazine catch and magazine catch spring from the frame.

11.2 Assembly

For reassembly, reverse the sequence used for removal and disassembly.

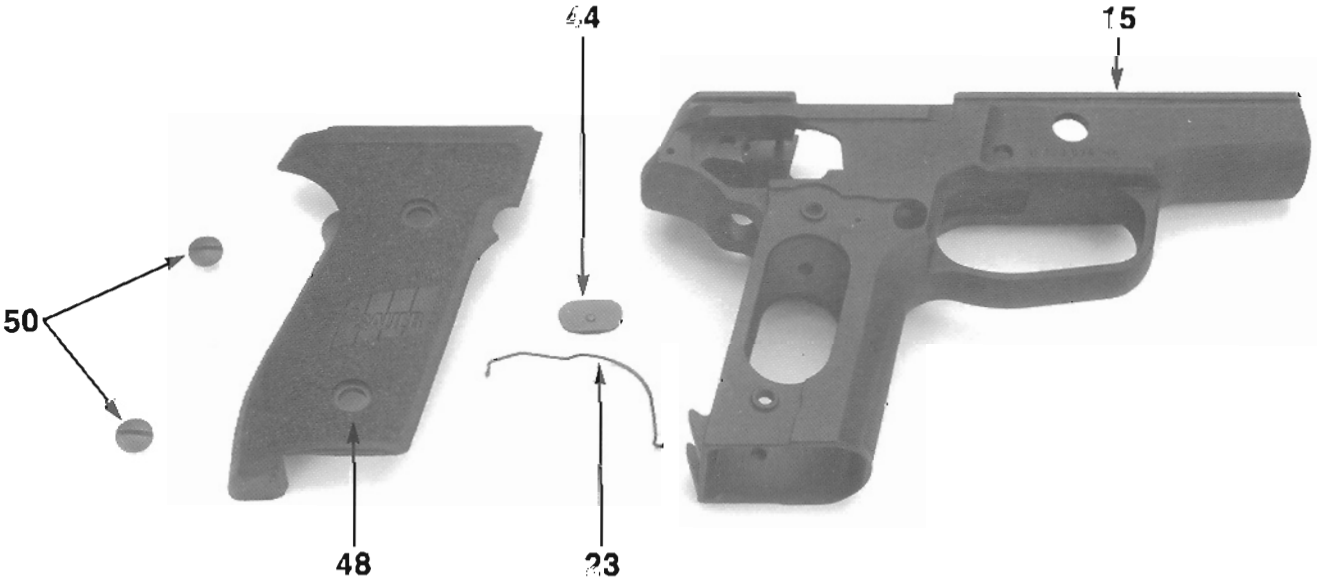


Magazine Catch Assembly

15.	Frame	47.	Magazine catch stop spring
43.	Magazine catch	49.	Left grip plate
45.	Magazine catch spring	50.	Grip plate screws
46.	Magazine catch stop		

11.3 Reversing the Magazine Catch

1. Remove the right grip plate and left grip plate.
2. Remove the magazine catch.
3. Remove the trigger bar spring.
4. Remove the support plate and reinstall it on the opposite side of the frame.
5. Install the magazine catch and magazine catch spring.
6. Install the magazine catch stop and magazine catch stop spring.
7. Install the trigger bar spring.
8. Install the right grip plate and left grip plate.



Removing the Support Plate

15. Frame
23. Trigger bar spring
44. Support plate
48. Right grip plate
50. Grip plate screws

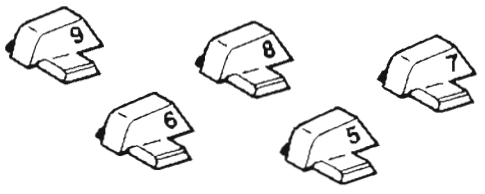
12.1 Zeroing the P228 Pistol

General Note - No windage or elevation correction should be made until the shooter has become familiar with the firing characteristics of the weapon.

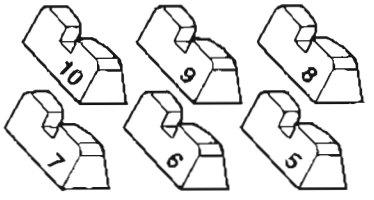
When zeroing, the target should be at 25 yards and the pistol should be fired from a rested position using the single-action mode. Sighting should be "point of aim, point of impact."

1. Windage - A change in windage is accomplished by moving the rear sight either to the left or right in its dovetail. When doing this, follow the rear sight rule: Move the rear sight in the direction the group is to go. Moving the rear sight 0.020 inches in the dovetail alters the point of impact by approximately 3 inches at 25 yards.

2. Elevation - For both the front and rear sights, 30 different height combinations are available. The sights are numbered according to their height. A change in elevation is accomplished by changing either the rear or front sight. It is recommended that the rear sight be changed first.



[1" between number changes at 25 yards]



[2" between number changes at 25 yards]

1. When changing the sights, remember this rule: Numbers up, groups up; numbers down, groups down. This is true whether it concerns the front or rear sights.

2. Size difference for each numbered sight: between front sights, 0.0055 inches; between rear sights, 0.011 inches.

3. Size designations apply equally to the dot/bar, 3 dot, or SIGLITE night sight sets.

12.2 Sight Specifications

P220 Fixed front sight	**P220** Adjustable front sight		**P225**		**P226**		**P228**		**P230**
REAR SIGHT	REAR	FRONT	REAR	FRONT	REAR	FRONT	REAR	FRONT	REAR SIGHT
SIGHTS TO RAISE THE STRIKE OF THE BULLET									
— • ◦	10	9	10	9	10	9	10	9	— ◦
— ◦	9	8	9		9		9		—
—		7	8						
N —									
STANDARD SIGHTS									
N	8	6	7	8	8	8	8	8	N
N+									
SIGHTS TO LOWER THE STRIKE OF THE BULLET									
+	7	5	6	7	7	7	7	7	+
+ ◦	6		5	6	6	6	6	6	+ •
	5			5	5	5	5	5	

NOTE:

1. P220 & P226 dovetailed front sights are the same.
2. At 25 yards each rear sight change will move the strike of the bullet approximately 2", and each front sight change approximately 1" on the P220, P225, P226, P228 and P229. On the P230, each rear sight increment will move the strike of the bullet approximately 2.5" at 25 yards.
3. All sight adjustments should be made on the rear sight first.
4. When zeroing, the weapon should be rested using single action. Sighting should be point of aim, point of impact.
5. Sight rule: Numbers up, groups up; numbers down, groups down; this is true for both front and rear sights.

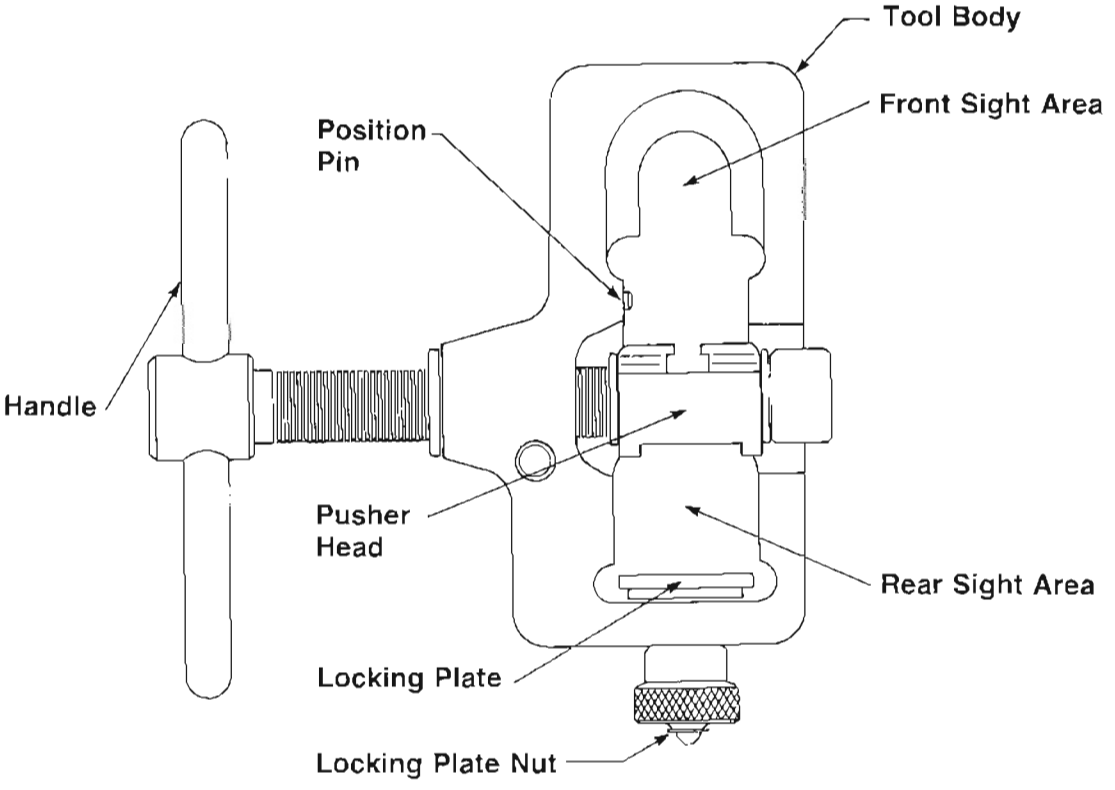
12.3 Using the Combination Sight Pusher

The combination sight pusher is one tool designed to move or change both the front and rear sights on the P220, P225, P226 or P228 pistols. When moving or changing sights, the slide can either remain on the pistol or be removed from it. MAKE SURE THAT THE PISTOL IS UNLOADED BEFORE WORKING WITH IT.

The sight pusher has an open and closed side to ensure correct fit of the gun; insert the front or rear of the slide into the "open side."

Combination Sight Pusher

Open Side Shown



NOTE: *There are several generations of sight pushers in the field. Some may vary somewhat from the example shown.*

12.3 Using the Combination Sight Pusher (cont'd)

12.3.1 Placement of the Pistol in the Sight Pusher

Front Sight: When inserting the front of the slide into the sight pusher, follow these steps: place the end of the slide into the pusher, center the pusher head directly over the base of the front sight. Snug the position pin in the sight pusher against the slide to eliminate movement during the sight adjustment procedure. Turn the handle to move the pusher head into contact with one side of the sight.

NOTE: *The pusher head must be centered over the sight base before making sight adjustments.*

Rear Sight: When inserting the rear of the slide into the pusher, follow these steps: loosen the locking plate,, insert the slide rails onto the locking plate, center the rear sight in the pusher head, tighten the locking plate nut.

NOTE: *The nut must be finger tight to hold the slide firmly into the tool.*

12.3.2 Moving the Sights

To move the sight, rotate the pusher's handle until the pusher head is seated against the sight, further turning will move the sight for windage adjustments.

12.3.3 Changing the Sights

To change the sights, rotate the pusher's handle to push the sight to the outside of the pusher (the opposite side from the handle) and off the slide, remove the slide from the tool and insert the new sight, then put the slide back into the pusher (making sure to lock it in) and push the new sight into place.

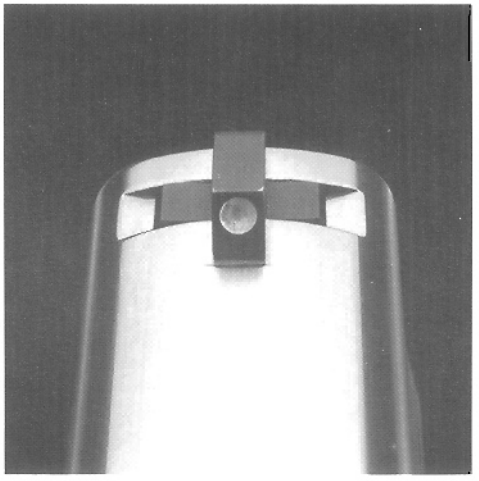
NOTE: *Install and remove SIG sights from the left side of the slide, due to a chamferred edge machined on the right corners of the sight bases to aid in the ease of sight installation.*

12.3 Using the Combination Sight Pusher (cont'd)

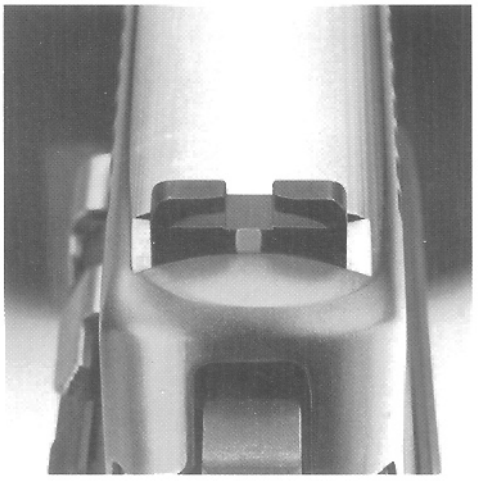
12.3.4 Centering the Sights

When changing sights, you can use a pencil to mark the original location of the sights in the dovetail. After removing the sights to be replaced, push the new sights on the slide and align to the mark.

NOTE: *Rough alignment can be achieved by the following: on the front sight, center the sight blade on the slide, and on the rear sight, center it in the dovetail.*



Front Sight



Rear Sight

THE PISTOL MUST BE ZEROED - After sights have been moved or changed.

13.1 General

In a well kept and properly maintained weapon, malfunctions or stoppages rarely occur.

13.2 Stoppages, Malfunctions and Their Correction

13.2.1 Feeding

Problem	Cause	Correction
No cartridge fed into chamber	1) Magazine not seated properly	Insert magazine properly
	2) Magazine dirty or deformed	Insert fresh magazine, clean or replace the removed magazine
	3) Weak magazine spring	Replace magazine spring
	4) Corroded, dirty or damaged ammunition	Change ammunition
Cartridge does not chamber	1) Cartridge incorrectly fed	Check or change magazine
	2) Low quality ammunition	Change ammunition
Slide does not close completely	1) Shooter error	Keep wrists locked and maintain a firm grip when firing the pistol
	2) Out of spec or defective ammunition	Replace ammunition
	3) Weapon dirty	Field strip, clean and lubricate
	4) Chamber dirty	Clean the chamber and bore
	5) Recoil spring weak or broken	Replace recoil spring and guide

13.2 Stoppages, Malfunctions and Their Correction (cont'd)

13.2.1 Feeding (cont'd)

Problem	Cause	Correction
Slide does not close completely	6) Recoil spring guide damaged	Replace recoil spring and guide
	7) Weapon too heavily lubricated	Clean and lubricate as per specification
	8) Binding in the frame rails	Check to ensure no pins are protruding in the frame rails
Double feed	1) Low quality ammunition	Replace ammunition
	2) Dirty extractor	Clean breech face
	3) Broken extractor	Replace extractor
	4) Damaged magazine	Replace magazine
	5) Shooter error	Keep wrist locked and maintain a firm grip when firing the pistol
	6) Ruptured case in chamber	Clear, clean and inspect the weapon, replace the ammunition

13.2.2 Extraction and Ejection

Slide has sprung forward but spent case sticks in the chamber	1) Underpowered ammunition	Replace ammunition
	2) Too little rearward movement due to dirt	Clean and lubricate the weapon and perform a function check
	3) Damaged or broken extractor	Replace extractor
	4) Ruptured case in chamber	Clear, clean and inspect the weapon, replace the ammunition

13.2 Stoppages, Malfunctions and Their Correction (cont'd)

13.2.2 Extraction and Ejection (cont'd)

Problem	Cause	Correction
Inconsistent ejection to include trapping brass in the ejection port	1) Low quality ammunition	Replace ammunition
	2) Shooter error	Keep wrists locked and maintain a firm grip when firing the pistol
	3) Extractor damaged	Replace extractor
	4) Ejector damaged	Replace ejector
	5) Dirty gun, insufficient recoil to cycle the action	Clean and lubricate the weapon

13.2.3 Other

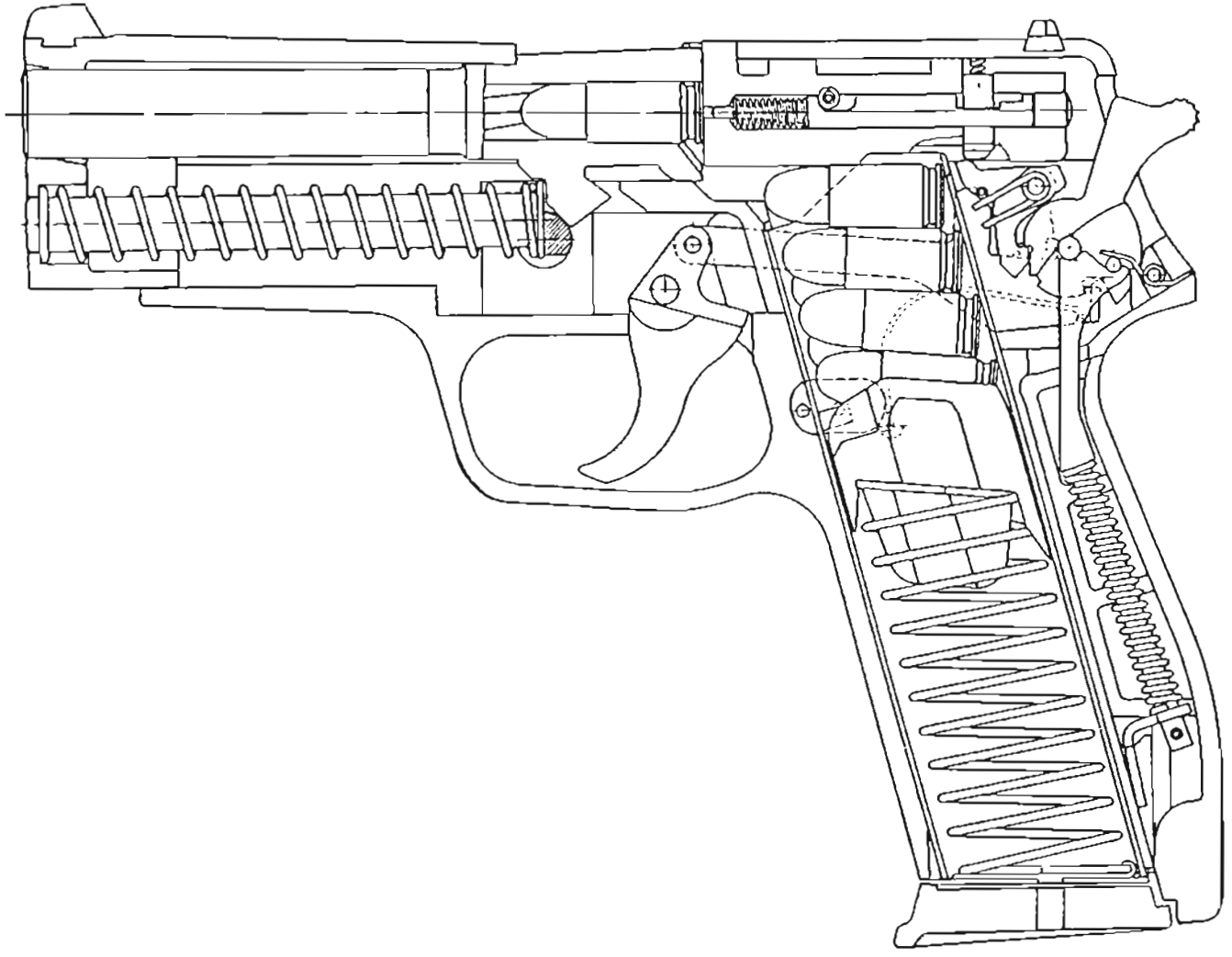
After being pulled, the trigger remains in the rearward position and is no longer under pressure	1) Trigger bar spring broken or incorrectly installed	Replace the trigger bar spring
The cocked hammer cannot be released by the trigger	1) Trigger bar spring broken or positioned improperly on the trigger bar	Check trigger bar spring position or replace trigger bar spring
	2) Damaged sear	Replace sear and hammer
	3) Damaged safety lever	Replace safety lever
	4) Damaged trigger bar	Replace trigger bar
Slide is arrested before the last round is fired	1) Slide catch spring weak or broken	Replace the slide catch spring
	2) Shooter error	Improper grip, thumb operating slide catch lever during recoil of pistol
	3) Dirty weapon	Clean and lubricate the weapon

13.2 Stoppages, Malfunctions and Their Correction (cont'd)

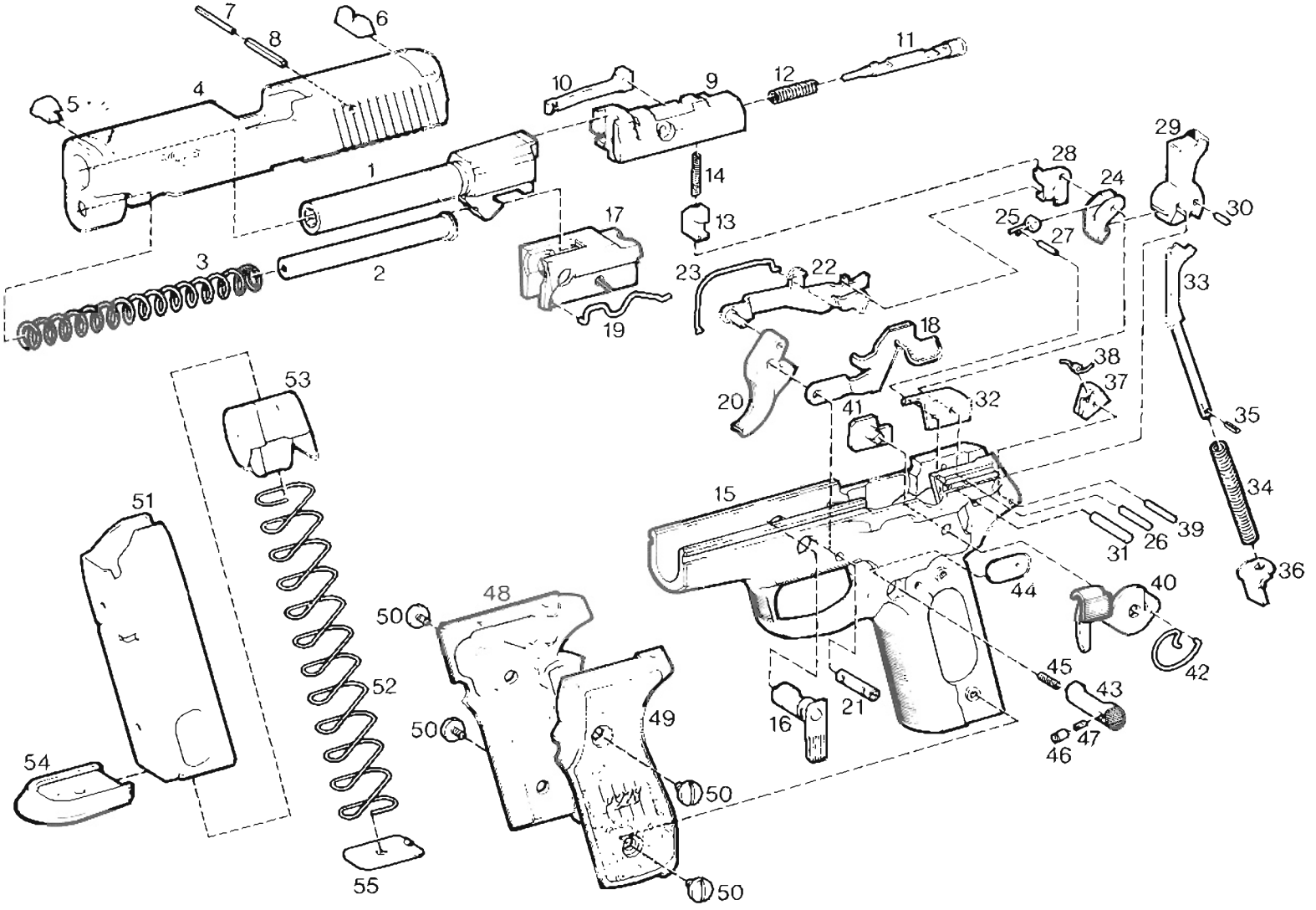
13.2.3 Other (cont'd)

Problem	Cause	Correction
Slide is not arrested after the last round is fired	1) Shooter error	Check grip position, keep wrists locked
	2) Under powered ammunition	Replace ammunition
	3) Improperly lubricated	Lubricate weapon
	4) Magazine follower jammed in upper part of the magazine	Clean or replace the magazine
	5) Slide catch lever is broken	Replace the slide catch lever
	6) Slide arresting notch damaged	Return to factory for repair
Decocking lever does not spring back	1) Decocking lever spring is out of position or broken	Replace or correctly mount the decocking lever spring
Hammer does not stay cocked when the slide is pulled to the rear and released	1) Arm of the sear spring is not secured under the sear spring pin H.D. or broken	Install the sear spring correctly or replace it
	2) Hammer or sear broken	Replace the hammer AND the sear
	3) Weapon is Double Action Only model	Refer to Owners Manual, refamiliarize with weapon

14.0 PROFILE DRAWING AND PARTS DIAGRAM



Profile Drawing of P228 Combat Pistol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14.0 PROFILE DRAWING AND PARTS LIST

#	Designation
1.	Barrel
2.	Recoil spring guide
3.	Recoil spring
4.	Slide
5.	Front sight - 5/6/7/8/9
6.	Rear sight - 5/6/7/8/9/10
7.	Inner pin H.D.
8.	Outer pin H.D.
9.	Breechblock
10.	Extractor
11.	Firing pin
12.	Firing pin spring
13.	Safety lock
14.	Safety lock spring
15.	Frame
16.	Take-down lever
17.	Locking insert
18.	Slide catch lever
19.	Slide catch lever spring
20.	Trigger
21.	Trigger pivot pin
22.	Trigger bar
23.	Trigger bar spring
24.	Sear
25.	Sear spring
26.	Sear pivot pin
27.	Sear spring pin H.D.
28.	Safety lever
29.	Hammer
30.	Hammer strut pin
31.	Hammer pivot pin
32.	Ejector
33.	Hammer strut
34.	Mainspring
35.	Mainspring pin
36.	Mainspring seat
37.	Hammer stop
38.	Hammer reset spring
39.	Hammer stop pin
40.	Decocking lever
41.	Decocking lever bearing
42.	Decocking lever spring
43.	Magazine catch
44.	Support plate
45.	Magazine catch spring
46.	Magazine catch stop
47.	Magazine catch stop spring
48.	Right grip plate
49.	Left grip plate
50.	Grip plate screw
51.	Magazine tube
52.	Magazine spring
53.	Magazine follower
54.	Magazine floorplate
55.	Magazine insert

15.1 Tools Necessary for Weapon Disassembly

(1) Straight Blade Screwdriver suitable for grip plate screw removal

(1) 1/8" Straight Blade Screwdriver

(1) 1/8" Roll Pin Punch

(1) 1/16" Pin Punch

(1) 4 - 8 oz. Hammer

For further assistance after consulting the manual, contact:

SIGARMS, INC.
Corporate Park
Exeter, NH 03833
(603) 772-2302

NOTES: